

Notice of Allowability

Application No.

10/762,690

Examiner

Victor J. Taylor

Applicant(s)

ELLIS ET AL.

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/16/2007.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Claims

1. Claims 1-19 are pending in the instant application. Therefore, claims 1-19 are presented for examination.

Drawings

2. The drawings were received on July 20, 2006. These drawings are approved.

Response to Arguments

3. Applicant's arguments, see the response, filed 5/16/2007, with respect to the specification argument for the long and near spaced gamma detectors have been fully considered and are persuasive. The objection to the specification of 1/22/2007 is moot and has been withdrawn.
4. Applicant's arguments, see the amendments to independent claims 1, 16 and 17 filed 1/22/2007, with respect to 35 USC 101 issues have been fully considered and are persuasive. The 35 USC 101 rejection of 1/22/2007 is moot and has been withdrawn.
5. Applicant's arguments see the arguments and amendments to independent claims 1, 16 and 17 filed 1/22/2007, with respect to 35 USC 102 issues have been fully considered and are persuasive. The 35 USC 102 rejection of 1/22/2007 is moot and has been withdrawn.

Allowable Subject Matter

6. Claims 1-19 are allowed.
7. The following is an examiner's statement of reasons for allowance:

I. The method in claim 1 for determining the formation density in a cased well borehole environment wherein the logging tool having a backscatter detector and a long spacing detector and a short spacing detector uses the gamma ray source to develop a plurality of cased hole calibration relationships between the different detected differences in the gamma rays to determine the corrected formation densities values wherein the steps for "developing one or more cased hole calibration relationships that utilize differences between scattered gamma rays observed by short spacing detectors and scattered gamma rays observed by long spacing detectors to determine corrected formation density values"...[and] using these steps for "the cased hole calibration relationships and scattered gamma ray measurements obtained by said long spacing detector and said short spacing detector to determine the formation density"...[and] "storing the determined formation density on a computer-readable medium" is not found in the cited art of record.

Claims 2-15 are dependent on the allowed independent claim 1 and are allowed at least for the reasons cited above.

It is these limitations expressed in each of these claims and not found, taught, or suggested in the prior art of record, that makes these claims allowable over the prior art.

II. The article of manufacture in claim 16 for a computer useable medium having a computer readable program code means embodied therein for determining the formation density in a cased hole environment, wherein the computer readable program code means is in the article of manufacture and wherein the "computer readable program means for determining formation density in a cased hole environment and

storing the determined formation density on a computer-readable medium, the program means using one or more cased hole calibration relationships and measurements made by a logging tool having a gamma ray source, a backscatter detector, a long spacing detector, and a short spacing detector, where the backscatter detector is disposed between the gamma ray source and the short spacing detector” and is used for determining the formation density in a cased well borehole environment is not found in the cited art of record.

It is these limitations expressed in each of these claims and not found, taught, or suggested in the prior art of record, that makes these claims allowable over the prior art.

III. The system in claim 17 for a computerized well logging system for determining the formation density in a cased well borehole environment wherein the logging tool comprises “a logging tool having a gamma ray source, a backscatter detector, a long spacing detector, and a short spacing detector, the backscatter detector disposed between the gamma ray source and the short spacing detector”...[and] using a “a computing module and/or processing circuitry, and connected to said logging tool, and having means for calculating the formation density from gamma ray scattering measurements as obtained by the long spacing detector and the gamma ray scattering measurements obtained by the short spacing detector using one or more cased hole calibration relationships, and the means for storing the determined formation density on a computer-readable medium” is not found in the cited art of record.

Claims 18-19 are dependent on the allowed independent claim 17 and are allowed at least for the reasons cited above.

It is these limitations expressed in each of these claims and not found, taught, or suggested in the prior art of record, that makes these claims allowable over the prior art.

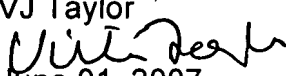
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

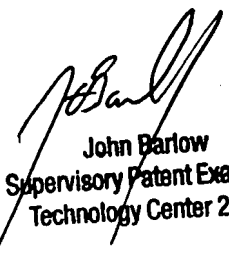
Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor J. Taylor whose telephone number is 517-272-2281. The examiner can normally be reached on 8:00 to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Barlow can be reached on 571-272-2863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VJ Taylor

June 01, 2007.


John Barlow
Supervisory Patent Examiner
Technology Center 2800